



***NAS Report
The Challenge For Congress,
Impact on the Courts***

**National Symposium
on Indigent Defense
February 18-19, 2011**



POINTS OF THIS TALK

- SHORT DESCRIPTION OF IP LEGISLATIVE PROPOSAL
- BRIEF REVIEW OF ADMISSIBILITY ISSUES
- BRIEF REVIEW OF WHAT MUST BE DONE TO CORRECT PAST ERRORS IN FORENSIC SCIENCE TESTIMONY, WHETHER ARISING FROM BAD LAB WORK OR SCIENTIFIC FLAWS

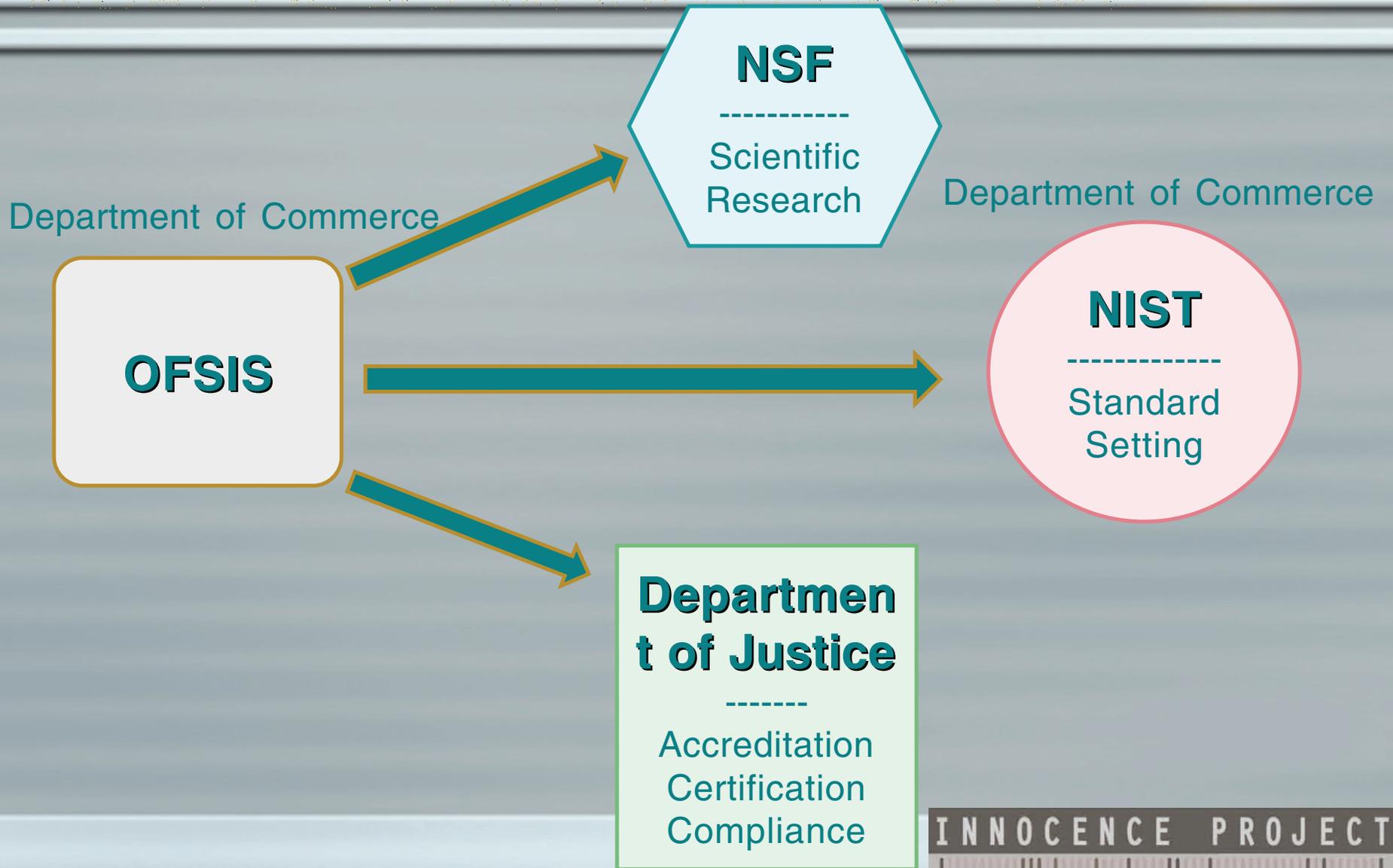
OFSIS



OFFICE OF FORENSIC SCIENCE IMPROVEMENT AND SUPPORT

- An independent entity that focuses on setting scientific standards
- Small, not big bureaucracy, uses existing agencies, not re-inventing wheel
- Cost of entity low
- Enables scientists to make scientific judgments, and law enforcement to set priorities for what disciplines are addressed first

WHAT OFSIS WOULD LOOK LIKE



ORGANIZATION



Director

Forensic
Science
Commission

- **SCIENTISTS:** statistics, research design, judgment and decision-making, organizational effectiveness, physics, chemistry, biology, criminology, cognition, computer science, genetics, and forensic science and examination
- **The Commission will retain all ultimate authority for all decisions made by the OFSIS**

Advisory
Committee

- **CRIMINAL JUSTICE STAKEHOLDERS:** Judges, prosecutors, Federal/State/local law enforcement, federal/state defense attorneys in public and private practice, public and private laboratories, and scientists and other scholars or experts
- **Advisory Committee will assist and provide input to the Commission so that recommendations can be phased in and enacted in a practical and feasible manner**

RESEARCH



- The Commission, in consultation with DOJ and the Advisory Committee:
 - Develop and prioritize research agenda
 - Review existing body of forensic science research
 - Direct an evaluation of the strengths and weaknesses of existing test systems, methods, procedures, and database interoperability

STANDARD SETTING (NIST)



- The Commission, in consultation with DOJ and the Advisory Committee would devise standards for:
 - Reliable conduct and reporting of forensic tests
 - Quality Assurance and Control
 - Certification
 - Interoperability
- Periodic review and revision of standards as needed

TECHNOLOGY INNOVATION GRANT PROGRAM



- A competitive, merit-reviewed grant program would be established within the Department of Commerce to support and promote, among public and private entities, the research, development, testing, and evaluation of test systems and methods
- The grant program would also encourage partnerships between businesses and institutions of higher learning

TRAINING & EDUCATION (DOJ)



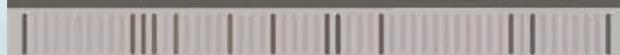
- Grant programs to provide in-service training, continuing science education or technical assistance to:
 - Federal, State and local forensic science providers
 - Federal, State and local law enforcement
 - Federal, State and local courts
 - Federal, State and local prosecutorial and defense services



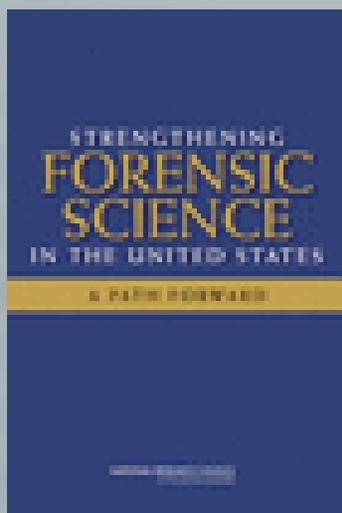
WHY AN INDEPENDENT ENTITY?



- Scientific standards must be perceived to be independently decided by scientists for rapid acceptance
- Greater involvement of broader scientific community, universities, business
- Waste of resources to be accrediting labs on disciplines when scientific standards not yet set
- The sooner scientific standards are set, better for prosecutors, courts, defense.



“Strengthening Forensic Science in the United States: A Path Forward” (2009)



NRC REPORT



“Much forensic evidence including, for example, bite marks and firearm and tool mark identifications, is introduced in criminal trials without any meaningful scientific validation, determination of error rates, or reliability testing to explain the limits of the discipline.”



“With the exception of nuclear DNA analysis... no forensic method has been rigorously shown to have the capacity to consistently, and with a high degree of certainty, demonstrate a connection between evidence and a specific individual or source.”



"[S]ome forensic science disciplines are supported by little rigorous systematic research to validate the discipline's basic premises and techniques."



“The bottom line is simple: In a number of forensic science disciplines, forensic science professionals have yet to establish either the validity of their approach or the accuracy of their conclusions”

A stylized icon of a balance scale, rendered in a light gray color. It features a central triangular beam supported by a vertical pillar, with two pans hanging from the ends. The background is a light blue gradient.

NAS Not the First to Notice



U.S. Department of Justice
Office of Justice Programs
National Institute of Justice

National Institute of Justice

Solicitation

Jenny Travis, Director

March, 2000

Forensic Friction Ridge (Fingerprint) Examination Validation Studies

APPLICATION DEADLINE:

July 28, 2000

From NIJ RFP: The participants in the [National Institute of Justice Fingerprint Advisory Committee] included practicing latent print examiners, researchers, and senior administrators from Federal, State, and private forensic science laboratories. They reached a consensus that the field needs... [b]asic research to determine the scientific validity of individuality in friction ridge examination based on measurement of features, quantification, and statistical analysis.

“NIJ has regularly resisted including comprehensive evaluations of the science underlying forensic techniques.”

EDITORIAL

Forensic Science: Oxymoron?

In detective novels and television series, criminals often get caught because they leave fingerprints at the scene. Well, art does imitate life; fingerprint analysis is widely used in U.S. courts and those of many other countries. But last year a funny thing happened to fingerprint evidence on the way to a conviction. Applying the standard set for the admissibility of scientific evidence by the U.S. Supreme Court in the 1993 Daubert case, Judge Louis Pollak ruled that an expert could not testify that the prints at a crime scene matched those of a suspect. Shock reverberated through the criminal justice community, until Judge Pollak induced a sigh of relief from district attorneys everywhere by saying that at least in this case, such testimony could be used after all.

The Supreme Court's Daubert standard has generated some ambiguity for the legal community, but the Court did list several criteria for qualifying expert testimony: peer review, error rate, adequate testing, regular standards and techniques, and general acceptance. Judge Pollak's initial finding was that the evidence flunked all but one. Some distinguished legal scholars think that he was right on that call and wrong on the second. The resulting controversy has reignited some old challenges to "forensic science."

It's not that fingerprint analysis is unreliable. The problem, rather, is that its reliability is unverified either by statistical models of fingerprint variation or by consistent data on error rates. Nor does the problem with forensic methods end there. The use of hair samples in identification and the analysis of bullet markings exemplify kinds of "scientific" evidence whose reliability may be exaggerated when presented to a jury. Some criminal defense attorneys have become concerned about the degree to which processing and enhancement of such images could mislead jurors who believe they are seeing unadorned originals. PhotoShop, after all, is everywhere.

Criminal justice agencies have been slow to adopt new scientific procedures and defensive about evaluation of their present ones. The acceptance of DNA evidence and the standardization of laboratory procedures for DNA analysis eventually broke through that barrier, well after there was convincing scientific proof of their reliability. But resistance has remained firm in other areas. For example, polygraph testing for security purposes in the U.S. Department of Energy was carefully evaluated by the National Academies and found to be defective. The department rejected that recommendation and went on testing anyhow. And despite repeated calls for accreditation and oversight, many government crime labs continue to lack either one.

In the United States, the National Academies have a project on Science, Technology, and the Law, in which I'm involved. That group, which had earlier looked at the implications of the Daubert decision and a variety of other issues, was urged to examine science and its uses in forensic examination. A project plan was developed and approved, and one private foundation made a verbal promise of support. The Department of Defense (DOD) and the Department of Justice were also approached for funding, since both have significant programs in this area that make use of forensic techniques. Ending a protracted exchange of correspondence with the Technical Support Working Group in DOD, representing both agencies, the project was dropped because the government insisted on rights of review that the Academies have, at least in the recent past, refused to grant a sponsor. And months after the foundation grant had been offered, it was withdrawn.

The Department of Justice, where the Federal Bureau of Investigation operates perhaps the most sophisticated crime laboratory in the country, is the home of the National Institute of Justice (NIJ). NIJ supports an annual Conference on Science and the Law, in which the American Association for the Advancement of Science and the Academies participate. In planning the agenda for these conferences, NIJ has regularly resisted including comprehensive evaluations of the science underlying forensic techniques.

One would have thought that the issues surrounding homeland security would have increased the government's desire to apply better science to the detection of criminal activity and the pursuit of perpetrators. And of course our society has a long-standing concern about protecting the rights of the accused. Both these public interests—security and justice—would be furthered by a more scientific and reliable technology for analyzing crimes. The mystery here is why the practitioners don't seem to want it!

Donald Kennedy
Editor-in-Chief





Giannelli & Imwinkelried:

“All the areas of forensic science discussed in this article share two common denominators: In each area little rigorous, systematic research has been done to validate the discipline’s basic premises and techniques, and in each area there is no evident reason why such research would be infeasible.”

No Limits? No Errors?

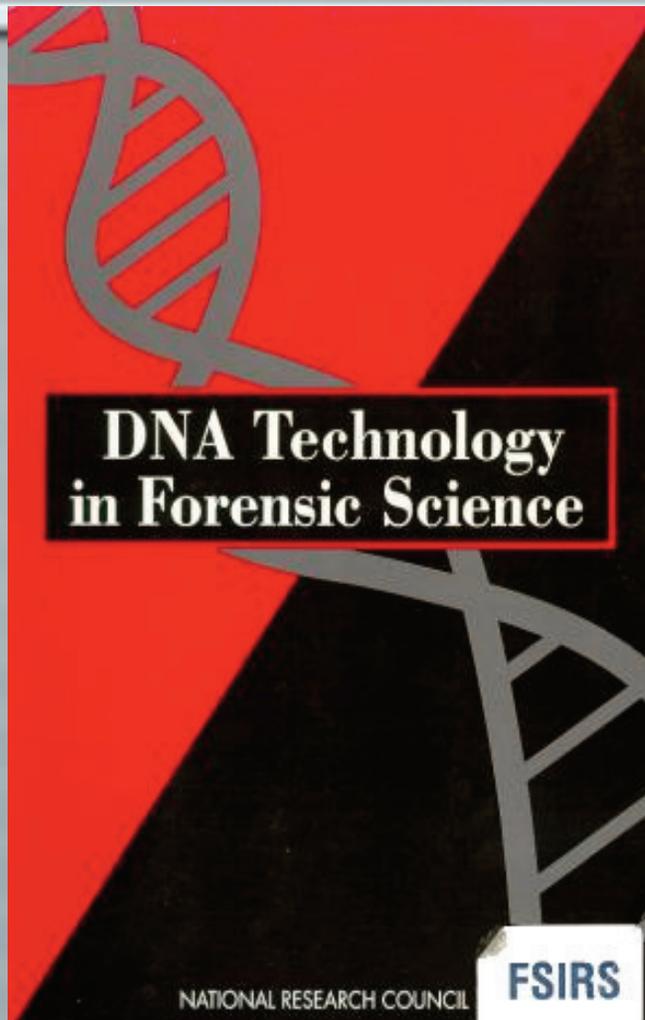


- “zero error rate”
- “reasonable scientific certainty”
- “100% certainty”
- “exact science”
- “identification to the exclusion of all others...”

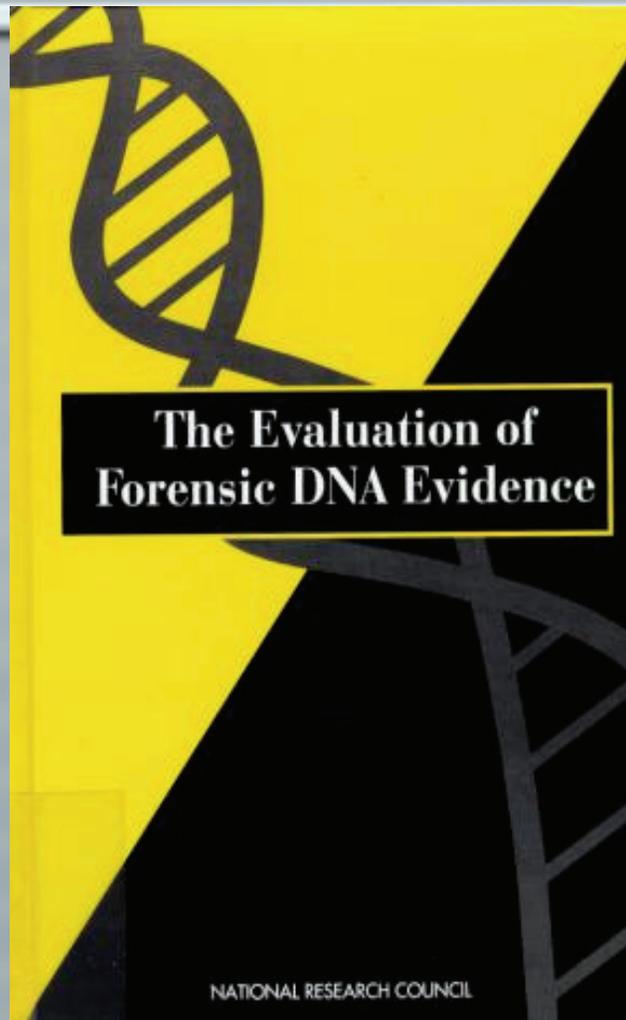
When, if ever, have judges excluded forensic science?



- DNA in the early 1990's
- Key factors:
 - Prominent critics (including an NRC panel)
 - Skillful litigators
 - Relative new method?



**First Report Issued by
National Academy of
Sciences in 1992**



**Second report issued in
May of 1996**



J Forensic Sci, January 2010, Vol. 55, No. 1
doi: 10.1111/j.1556-4029.2009.01255.x
Available online at: interscience.wiley.com

PRESIDENT'S EDITORIAL

Thomas L. Bohan, Ph.D., J.D.

Strengthening Forensic Science: A Way Station on the Journey to Justice

Bohan's main points

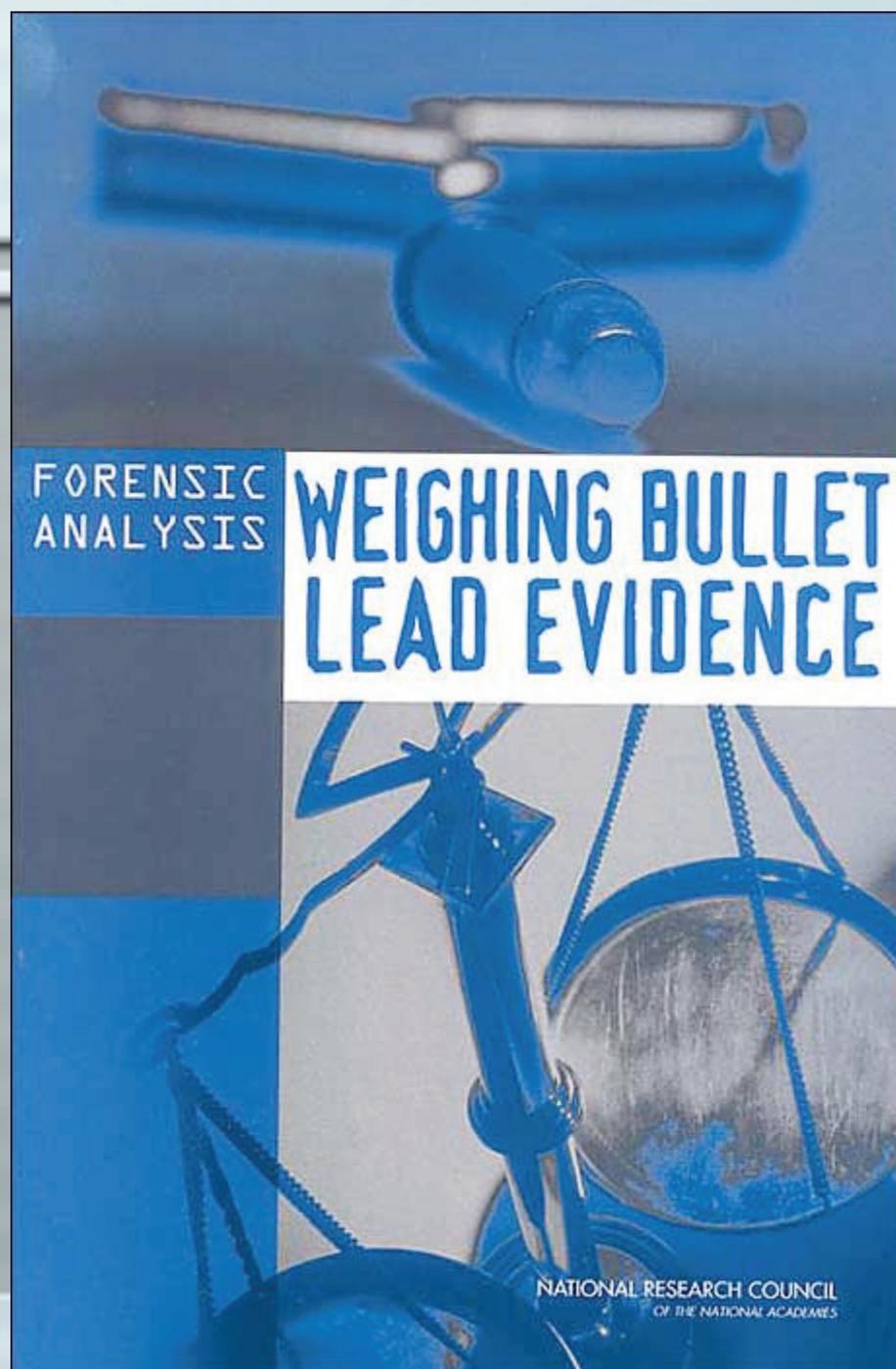


- The NAS report has not yet had an immediate impact on criminal trials
- Earlier NAS reports (polygraph and bullet lead) carefully reviewed all the studies claimed to have validated the practice in question before concluding that the practice had not been validated

Bohan's main points



- With respect to the pattern-based techniques that the latest report criticized, the tabulation of prior studies needs to be done.
- The report's conclusions about lack of validation have not been accepted by the practitioners of the questioned practices, most of whom continue to cite studies that they claim constitute validation.
- This contrasts with the response to the NAS report on bullet lead. Once that report issued there was an immediate cessation of attempts to proffer bullet lead testimony.



FORENSIC
ANALYSIS

WEIGHING BULLET LEAD EVIDENCE

NATIONAL RESEARCH COUNCIL
OF THE NATIONAL ACADEMIES

Following NRC Report in 2004



Federal Bureau of Investigation - Press Release September 1, 2005



Contact Us

- Your Local FBI Office
- Overseas Offices
- Submit a Crime Tip
- File an Internet Crime Complaint
- More Contacts

Learn About Us

- Facts & Figures
- What We Investigate
- Intelligence
- Information Technology
- Fingerprints, Forensics & FBI Training
- Reports & Publications
- History
- More About Us

Press Release

For Immediate Release
September 1, 2005

Washington D.C.
FBI National Press Office
(202) 324-3691

FBI LABORATORY ANNOUNCES DISCONTINUATION OF BULLET LEAD EXAMINATIONS

Washington, D.C. -- The FBI Laboratory today announced that, after extensive study and consideration, it will no longer conduct the examination of bullet lead. Bullet lead examinations have historically been performed in limited circumstances, typically when a firearm has not been recovered or when a fired bullet is too mutilated for comparison of physical markings. Bullet lead examinations use analytical chemistry to determine the amounts of trace elements (such as copper, arsenic, antimony, tin, etc.) found within bullets. The result of that analysis allows crime-scene bullets to be compared to bullets associated with a suspect. Since the early 1980's the FBI Laboratory has conducted bullet lead examinations in approximately 2,500 cases submitted by federal, state, local, and foreign law enforcement agencies. In less than 20% of those cases was the result introduced into evidence at trial.



FBI-IP REVIEW AND NOTICE

- AGREEMENT AFTER 60 MINUTES/WASHINGTON POST
- INVENTORIED ALL CASES AND GOT TRANSCRIPTS
 - TRIAGE -- PRISONERS AFTER TRIAL
- PROTECTIVE ORDER
 - LETTERS TO PROSECUTORS, JUDGES
 - NON-PROFITS HELP LOCATE DEFENSE ATTORNEYS



FBI-IP REVIEW AND NOTICE

- NEED TO DO SAME KIND OF TRIAGE REVIEW WHEN DISCOVER INCOMPETENT EXAMINER, FAILURE TO USE CONTROLS, DRY-LABING
- NEED TO HAVE LIMS SYSTEM AT LAB THAT IS LINKED TO JUDICIAL CASE AND OUTCOME

NAS POST-CONVICTION ATTACK



- AFTER LITIGATING THAT FORENSIC ID EVIDENCE FROM FROM CHAPTER 5 (FINGERPRINT, TOOLMARK ON BULLET OR CASING, BITE MARK, TIRE PATTERN, ETC.), JUDGE PERSUADED
 - 1) SHOULDN'T HAVE BEEN ADMITTED AT ALL, OR
 - 2) STRENGTH OF EVIDENCE WAS MISREPRESENTED OR EXAGGERATED NAS POST-CONVICTION ATTACK



NAS ATTACK

- IN THEORY ALL ABSOLUTE SOURCE STATEMENTS SHOULD BE EXCLUDED BECAUSE NO DATABASE, NO VALIDATED STATISTICS
 - CAN'T SAY THIS MINUTIAE ON PRINT OR STRIA ON BULLET "SIMILAR TO," OR "CONSISTENT WITH" UNLESS VALIDATED, QUANTIFIED MEASUREMENT ERROR
 - SHOULDN'T MAKE ABSOLUTE SOURCE STATEMENT WITHOUT QUANTIFIED ERROR RATE

NAS POST-CONVICTION ATTACK



MEASURE OF PREJUDICE

DIFFERENCE BETWEEN---

“THIS BULLET CAME FROM THIS GUN TO THE EXCLUSION OF ALL GUNS
IN THE UNIVERSE AND WE HAVE A ZERO ERROR RATE”

AND

“MORE PROBABLE THAN NOT” -- GLYNN

“REASONABLE DEGREE OF BALLISTIC CERTAINTY”

“CANNOT BE EXCLUDED AS THE SOURCE”

NAS POST-CONVICTION ATTACK



MEASURE OF PREJUDICE

DIFFERENCE BETWEEN---

“THIS PRINT CAME FROM THIS PERSON TO THE EXCLUSION OF ALL PRINTS IN THE UNIVERSE AND WE HAVE A ZERO ERROR RATE”

AND

“WHETHER FINGERPRINTS ARE UNIQUE HASN'T BEEN PROVEN”

“THE PRINT SHARES COMMON CHARACTERISTICS WITH THE DEFENDANT BUT THE POOL OF PEOPLE WHO MIGHT SHARE THOSE CHARACTERISTICS IS UNKNOWN”

“THE ERROR RATE IS UNKNOWN”

NAS POST-CONVICTION ATTACK



MEASURE OF PREJUDICE

WHAT PROSECUTOR SAID --

IN OPENING

IN CLOSING

IN DEFENSE OF ATTACKS, IF ANY, ON EXPERT
IMPORTANCE OF EVIDENCE!!!



One factor significantly influenced the Laboratory's decision to no longer conduct the examination of bullet lead: neither scientists nor bullet manufacturers are able to definitively attest to the significance of an association made between bullets in the course of a bullet lead examination. While the FBI Laboratory still firmly supports the scientific foundation of bullet lead analysis, given the costs of maintaining the equipment, the resources necessary to do the examination, and its relative probative value, the FBI Laboratory has decided that it will no longer conduct this exam.

Letters outlining the FBI Laboratory's decision to discontinue these examinations are being sent to approximately 300 agencies that received laboratory reports indicating positive results since 1996. The letters are being sent so that these agencies may take whatever steps they deem appropriate, if any, given the facts of their particular case. It is important to note that the FBI Laboratory has not determined that previously issued bullet lead reports were in error.

LEGAL CHARACTERIZATIONS OF NAS ATTACK



- SIX CATEGORIES

- 1) NEWLY DISCOVERED EVIDENCE

- 2) UNDISCLOSED “BRADY”

- 3) GIGLIO MATERIAL

Misrepresentation Prosecutor didn't know about that impeaches credibility of witness

- 4) NAPUE MATERIAL

False evidence prosecution knew about and failed to correct

LEGAL CHARACTERIZATIONS OF NAS ATTACK



- SIX CATEGORIES CONT'D
 - 5) STRICKLAND INEFFECTIVENESS
 - 6) 8TH AMENDMENT “HEIGHTENED RELIABILITY” REQUIREMENT FOR CAPITAL SENTENCING

LEGAL CHARACTERIZATIONS OF NAS ATTACK



- NEWLY DISCOVERED EVIDENCE OF INNOCENCE
 - NAS Alone Proves Prosecution's Forensic Identification Evidence Is No Longer Generally Accepted As Reliable

LEGAL CHARACTERIZATIONS OF NAS ATTACK



- “Courts have recognized that the [NRC] is a distinguished cross section of the scientific community.” *People v. Venegas* 18 Cal.4th 47
- Courts have recognized that the conclusions of the National Research Council regarding the reliability of a particular methodology "can easily be equated with general acceptance of those methodologies in the relevant scientific community." *Porter* 618 A.2d at 643 n.26.
- USSC cites to report for proposition that “serious deficiencies have been found in forensic evidence used in criminal trials.” *Melendez-Diaz* 557 U.S. ----, 129 S.Ct. 2527

LEGAL CHARACTERIZATIONS OF NAS ATTACK



- NEWLY DISCOVERED EVIDENCE OF INNOCENCE
 - NAS Alone Proves Prosecution's Forensic Identification Evidence Is No Longer Generally Accepted As Reliable
 - BOTH A FRYE AND DAUBERT ARGUMENT

Frye and Daubert



Frye:

General acceptance by the relevant scientific community that the technique is reliable.

■ *Daubert:*

Court determination of reliability. Factors include but are not limited to

- Testing/Validation
- Peer Review and Publication
- Error Rate
- Standards
- General Acceptance

What does general acceptance mean?



- Reliability has been established
- Validity has been established
- Accuracy is established
- Has a known error
- Understand the conditions in which errors occur and do not occur
- Standard error of measure is established and known
- Standards exist

Who is the scientific community and what is the relationship of the NAS Report to the Views of the Community?



- I. NAS report is representative of the views of the scientific community
- II. Scholars, scientists, forensic scientists
- III. Considered all information that was submitted.
- IV. Scientific community cannot be limited to those who practice the discipline

LEGAL CHARACTERIZATION OF NAS ATTACK



- NEWLY DISCOVERED EVIDENCE OF INNOCENCE
 - SERIOUS PROBLEMS!!!!
 - ONLY AVAILABLE IN STATE COURT
 - DEADLINES -- ARGUABLY STARTS RUNNING FROM NAS PUBLICATION DATE
 - HIGHER STANDARD TO VACATE CONVICTION
 - REASONABLE PROBABILITY THAT THE NEW EVIDENCE, LOOKING AT RECORD AS A WHOLE, WOULD LEAD TO A DIFFERENT OUTCOME JUST

LEGAL CHARACTERIZATION OF NAS ATTACK



- CLASSIC BRADY - EXCULPATORY EVIDENCE THE PROSECUTION DID NOT DISCLOSE
 - DOESN'T MATTER WHETHER PROSECUTION HAS ACTUAL KNOWLEDGE OF THE EVIDENCE AT ISSUE *Kyles v. Whitley*, 514 U.S. 419, 432-443 (1995).
 - BUT, HERE BOTH THE FORENSIC WITNESS AND THE PROSECUTOR STILL SAY THEY DON'T "KNOW" EVIDENCE IS UNRELIABLE, EXAGGERATED, OR EXCULPATORY

LEGAL CHARACTERIZATION OF NAS ATTACK



- DUTY TO DISCLOSE IN ONGOING. Pennsylvania v. Ritchie, 480 U.S. 39, 60 (1987); Imbler v. Pachtman, 424 U.S. 409, 427 n.25 (1976)
- Because duty is on-going, prosecutor must disclose *whenever it becomes aware of forensic or examiner deficiencies.*
- Because duty is on-going, as state of scientific knowledge changes, *there is on-going duty to disclose scientific inaccuracies.*

LEGAL CHARACTERIZATION OF NAS ATTACK



- GIGLIO, 405 US 150 (1972) MATERIAL
 - MISREPRESENTATION BY WITNESS
 - MISREPRESENTS RESULT “SCIENTIFIC” WITH NO ERROR RATE
 - PROSECUTOR DOESN’T KNOW ABOUT IT
 - IMPEACHES CREDIBILITY OF KEY EVIDENCE
 - IF POST-CONVICTION COURT ONLY DECIDES EVIDENCE EXAGGERATED, STILL MERITS RELIEF UNDER GIGLIO

LEGAL CHARACTERIZATION OF NAS ATTACK



- GIGLIO, 405 US 150 (1972) MATERIAL
 - DUTY TO CORRECT MISREPRESENTATION EVEN IF AT THE TIME DIDN'T KNOW IT WAS WRONG
 - ASCLAD CODE OF ETHICS
 - 2.1 No member of ASCLD shall engage in any conduct that is harmful to the profession of forensic science including, but not limited to, any illegal activity, any technical misrepresentation or distortion, any scholarly falsification.
 - 2.6 No member of ASCLD shall offer opinions or conclusions in testimony, which are untrue or are not supported by scientific data.
 - 2.10 All members shall report, to the extent permitted by law, to the Board of Directors any potential ethics violation committed by another member of ASCLD.

LEGAL CHARACTERIZATION OF NAS ATTACK



- GIGLIO, 405 US 150, 154 (1972)
 - REVERSE WHEN “RELIABILITY OF A GIVEN WITNESS MAY WELL BE DETERMINATIVE OF GUILT OR INNOCENCE”

LEGAL CHARACTERIZATION OF NAS ATTACK



- GIGLIO, 405 US 150 (1972) MATERIAL
 - KYLES: REVERSE WHEN “REASONABLE PROB OF A DIFFERENT OUTCOME” WHERE
 - Bagley's touchstone of materiality is a “reasonable probability” of a different result, and the adjective is important. The question is not whether the defendant would more likely than not have received a different verdict with the evidence, but whether in its absence he received a fair trial, understood as a trial resulting in a verdict worthy of confidence. A “reasonable probability” of a different result is accordingly shown when the government's evidentiary suppression undermines confidence in the outcome of the trial. Bagley, 473 U.S., at 678, 105 S.Ct., at 3381.

LEGAL CHARACTERIZATION OF NAS ATTACK



- GIGLIO, 405 US 150 (1972) MATERIAL
 - BRADY/GIGLIO STANDARD LOWER THAN NEWLY DISCOVERED EVIDENCE
 - ABSENCE OF ACKNOWLEDGEMENT THAT PRINT/BULLET EVIDENCE WAS SUBJECT TO ERROR NOT A “FAIR TRIAL” OR A “VERDICT WORTHY OF CONFIDENCE”
- STORY/THEME ARROGANCE, BAD FAITH
 - IMPORTANT TO STRESS THAT FORENSIC SCIENTISTS HAD EARLY AND FAIR WARNING THAT METHOD NOT SCIENTIFICALLY VALIDATED OR ERROR FREE
 - VERDICT NOT WORTHY OF PUBLIC CONFIDENCE IF BASED ON MISREPRESENTED AND EXAGGERATED SCIENCE

LEGAL CHARACTERIZATION OF NAS ATTACK



Napue v. Illinois, 360 U.S. 264 (1959)

- THE KNOWING USE OF FALSE TESTIMONY, “FALSE FACTS”
- DUTY TO CORRECT
- REVERSAL REQUIRED “IF THE FALSE TESTIMONY COULD IN ANY REASONABLE LIKELIHOOD HAVE AFFECTED THE JUDGMENT OF THE JURY” NAPUE AT 271

LEGAL CHARACTERIZATION OF NAS ATTACK



Napue v. Illinois, 360 U.S. 264 (1959)

- THE MORE THE FORENSIC COMMUNITY SAYS THAT THE NAS REPORT IS “NOTHING NEW,” WE’VE KNOWN ABOUT THESE PROBLEMS A LONG TIME...
 - THE MORE IT LOOKS LIKE A MISREPRESENTATION
 - THE MORE IT BECOMES CLEAR THERE WAS A DUTY TO CORRECT

LEGAL CHARACTERIZATION OF NAS ATTACK



8th AMENDMENT “HEIGHTENED
RELIABILITY” ARGUMENT

The Eighth Amendment is all about reliability



- **The Eighth Amendment imposes a heightened standard “for reliability in the determination that death is the appropriate punishment in a specific case.”** Woodson v. North Carolina, 428 U.S. 280, 305 (1976).
- **This heightened need for reliability requires the provision of “accurate sentencing information [as] an indispensable prerequisite to a reasoned determination of whether a defendant shall live or die.”** Gregg v. Georgia, 428 U.S. 153, 190 (1976).

An “acute need” for reliability.



- “The Court has stressed the ‘acute need’ for reliable decisionmaking when the death penalty is at issue.”
- Deck v. Missouri, 544 U.S. 622, 632 (2005)
- The Court has repeatedly “recognized an acute need for reliability in capital sentencing proceedings.”
- Monge v. California, 524 U.S. 721, 732 (1998)

Daubert is all about reliability



- “[T]he trial judge must ensure that any and all scientific testimony or evidence admitted is not only relevant, but reliable.”
- Daubert v. Merrell Dow Pharmaceutical, 509 U.S. 579, 589 (1993)
- “In short, the requirement that an expert's testimony pertain to ‘scientific knowledge’ **establishes a standard of evidentiary reliability.**” Id. at 590.
- Daubert’s “overarching subject is the scientific validity – **and thus the evidentiary relevance and reliability** – of the principles that underlie a proposed submission.” Id. at 595

Capital Implications of Daubert



- Even if the evidence would somehow still be admissible under *Frye*, if it lacks **basic scientific reliability** under Daubert, it cannot satisfy the Eighth Amendment requirement of **heightened reliability**.

LEGAL CHARACTERIZATION OF NAS ATTACK



- IAC -- STRICKLAND

- **ABA DP Guidelines, Guideline 10.7**

"Counsel at every stage have an obligation to conduct thorough and independent investigations relating to the issues of both guilt and penalty,"

- **ABA Standards for Criminal Justice, The Defense Function § 4.1**

"It is the duty of the lawyer to conduct a prompt investigation of the circumstances of the case and explore all avenues leading to facts relevant to guilt and degree of guilt or penalty,"

- The failure to investigate and utilize this evidence proves counsel's deficient performance under Strickland.

LEGAL CHARACTERIZATION OF NAS ATTACK



- IAC -- STRICKLAND
- Failure to pursue:
 - Discovery or funding opportunities
 - Daubert/Frye or other admissibility issues
 - Testing requested by the defendant
 - Cross examination of prosecution experts
 - Failure to object to improper characterization of evidence
 - Failure to employ or ineffective usage of defense experts

The double-edged sword



BRADY

- To the extent that underlying facts in the NAS Report are not new, that evidence would have been known to the prosecution and they would have been required to disclose it under Brady

STRICKLAND

- Alternatively, it was available to trial counsel at the time of trial and could have been used to exclude false evidence and argument and impeach the witnesses who provided such testimony.

USA v. Taylor, 2009 WL 3347485 (D.N.M. 2009)



Discovery demand:

- Case file, including all bench notes of the analyst and any reviewer
- Documents and/or photographs relied upon in performing comparisons or rendering opinions, including SOPs, match criteria, photographs documenting the comparison

USA v. Taylor, 2009 WL 3347485 (D.N.M. 2009)



Discovery demand:

- Documentation of the exact points of comparison being relied upon for any firearm/toolmark comparison (*USA v. Robinson*, 44 F. Supp. 2d 1345)
- Documentation for any points of dissimilarity in any firearm/toolmark comparison conducted in this case and if the dissimilarity did not result in an exclusion an explanation as to why these points of dissimilarity do not lead to an exclusion.

USA v. Taylor, 2009 WL 3347485 (D.N.M. 2009)



Discovery demand:

- The results of any computer searches seeking a match with questioned evidence
- Calibration and maintenance records for all instruments and equipment used in the comparison
- Calibration and maintenance records for all instruments and equipment used in the comparison

USA v. Taylor, 2009 WL 3347485 (D.N.M. 2009)



Discovery demand:

- Developmental validation
- Internal validation
- Proficiency tests of analyst and peer reviewer
- Accreditation documents
- Audit documents

USA v. Taylor, 2009 WL 3347485 (D.N.M. 2009)



04/17/2009 09:07 505-8273318

NORTHERN FORENSIC LAB

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Department of Public Safety Crime Laboratory Firearms Identification Unit Worksheet

Case # 05-1268 *Supplemental*
Date 2/28/06
Initials JR
Page 3 of 10

by Special Agent Oscar B. Flores. He had inquired about the FBI's result in reference to this rifle (Item #7). I explained that there had not been any associations. He continued to explain that he had information that this rifle (Item #7) had been used in the 05-1268 homicide. I advised him that I would check into this case and also requested that the evidence (bullet- Item 7, case # 05-1268) be returned for comparison.

USA v. Taylor, 2009 WL 3347485 (D.N.M. 2009)



- Form over substance (page limits)
- Begins admissibility analysis with review of defendant's confession
- Emphasizes the expert's qualifications
- “[T]he test of reliability is flexible, and Daubert's list of specific factors neither necessarily nor exclusively applies to all experts or in every case.”

USA v. Taylor, 2009 WL 3347485 (D.N.M. 2009)



- “[V]igorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking shaky but admissible evidence.”
- “The use of firearm identification evidence in criminal trials is hardly novel.”
- “no federal court has yet deemed it inadmissible.”

USA v. Taylor, 2009 WL 3347485 (D.N.M. 2009)



- “[T]he Government cites two articles in the Journal of Forensic Science, [a] peer-reviewed publication, on the subject of firearm and toolmark identification. Therefore, this factor clearly weighs in favor of admissibility.”

- “The AFTE Theory appears to be widely accepted by trained firearms examiners, although it is not universally followed.”

Defining the relevant scientific community



- NAS Report, p. 15: “The forensic science system is underresourced ... in the sense that it has only thin ties to an academic research base that could support the forensic science disciplines and fill knowledge gaps.”
- Bohan article: “It seems obvious that a broad swath of scientists should be engaged in examining each forensic technique about which serious questions have been raised.”

United States v. Baines, 573 F. 3d 979 (10th Cir. 2009)



“[W]hile we acknowledge that acceptance by a community of unbiased experts would carry greater weight, we believe that acceptance by other experts in the field should also be considered. And when we consider that factor with respect to fingerprint analysis, what we observe is overwhelming acceptance.”

USA v. Taylor, 2009 WL 3347485 (D.N.M. 2009)



- “Because of the seriousness of the criticisms launched against the methodology underlying firearms identification, both by various commentators and by Defendant in this case, the Court will carefully assess the reliability of this methodology, using *Daubert* as a guide.”

USA v. Taylor, 2009 WL 3347485 (D.N.M. 2009)



- “[B]ecause of the limitations on the reliability of firearms identification evidence... Mr. Nichols will not be permitted to testify that his methodology allows him to reach this conclusion as a matter of scientific certainty.”

USA v. Taylor, 200



- “ Mr. Nichols also will not be allowed to testify that he can conclude that there is a match to the exclusion, either practical or absolute, of all other guns. He may only testify that, in his opinion, the bullet came from the suspect rifle to within a reasonable degree of certainty in the firearms examination field.”